What is Anxiety?

Anxiety is thought to be less common and/or severe compared to other psychological disorders such as depression or schizophrenia.

In the past, investigators have concentrated on studying normal animals or humans under contrived or natural stimulus conditions that have face validity for being anxiety producing. The description and operational quantitation of pathological anxiety has not received the intensive clinical study accorded to the related area of depressive affect. More work is needed in the field of anxiety, with attempts at separation of measures of anxiety from other affect states, especially depression.

Anxiety Disorders: A Review

The biology of anxiety and anxiety disorders has been a relatively neglected area of research, despite its obvious involvement and the plethora of physical manifestations and symptoms associated with them. One aspect which has been researched rather extensively is the psychophysiology of anxiety, but this is essentially a refinement of clinical observation to use physiological measures as monitors of psychological state. Biological theories of anxiety for most of this century were overshadowed by psychological ones, especially those of psychoanalysis, because of the pivotal role afforded to anxiety in both the early and later theoretical systems of Freud. Later behavioral theories became influential especially in the United Kingdom where behavioral methods of treatment were early on the scene.

The advent of effective pharmacotherapy for a disorder is not only of practical utility but of theoretical interest in that it should help to elucidate underlying mechanisms. However, in
order to do this, the mechanisms of action of the drug should be known, at least in outline. The introduction of the benzodiazepines represented a step forward in the treatment of anxiety states with respect to both increased efficacy and decreased toxicity as compared with the barbiturates. But the lack of any clear pharmacological mode of action hindered progress in studying the biological aspect of anxiety. All this has changed in the last few years. The discovery of the benzodiazepine receptor has given an enormous fillip to basic research in this area, and developments are beginning to be seen in the clinical area as well. Some of the older problems can now be readdressed, for example the role of catecholamines in anxiety.

Recently, lactate infusions have been used as a possible means of differentiating subgroups of anxiety disorders. The American Psychiatric Association's DSM-III classification system (1980) makes a distinction between phobic states with and without panic, panic states and generalized anxiety disorder. This is based, at least in part, on more than two decades of extensive work by Donald Klein (1964, 1967), who has shown that panic states, but not anticipatory anxiety, is improved by antidepressants such as imipramine rather than by standard antianxiety treatment.

Cognitive Processes, Anxiety and the Treatment of Anxiety Disorders

The cognitive perspective views the behavior of people as products of thoughts, understandings, ideas, and interpretations concerning themselves and their environments. This point of view, which emphasizes the ways in which individuals process, evaluate, and respond to stimuli has become the successor to behaviorism as the dominant influence in many areas of psychology. Whereas behaviorism emphasized behavior as an outcome of environmental influences, cognitive psychology looks for causes of behavior not only in the environment but
also within the individual. Cognitive theorists have replaced stimulus-response psychology with an input-output psychology that pays attention to transformations taking place between perceived stimulus and behavioral response, including control processes often captured through introspection. In recent years, cognitive psychologists have given special attention to hot cognitions, by which is meant thoughts and decisions that have high affective importance to the person.

Cognitive behavior therapy, while overlapping conceptually with cognitive psychology, has grown out of clinical research rather than the experimental laboratory. It emphasizes the interdependence of the overt and the covert and the need for persons to develop self-control over their lives. Clinicians who work along cognitive lines have sought to change behavior by changing specific thought patterns. For example, for some dental patients the cognitions of anticipation of pain might be modified and recast as anticipation of no longer having a toothache; for highly test-anxious students fear of flunking out at the end of the school year might be altered to planning how to study tonight; and for angry acter-outers thoughts about how to get back at their tormenters might be changed to thoughts focused on the undesirable consequences of acting out.

Evidence gathered in the laboratory and in clinical settings has demonstrated the important roles that cognitive processes play in both maladaptive and adaptive behavior. A person's usual train of thought and habitual mental set can be viewed as assets or as vulnerability factors that interact with characteristics of situations to produce either adaptation or maladaptation. For example, in anxiety disorders, precipitating events elicit or magnify underlying personal preoccupations (such as fear of negative consequences) and give rise to uncertainty about outcomes, hypervigilance, and concern over potential dangers. As a result, the
anxious individual may continuously scan situations for potential danger signals and because of looking for these signals, might not pay full attention to the task at hand.

**Cognitive Processes And Anxiety Syndromes**

Although it has often been said that distortion of reality characterizes psychotics but not neurotics, considerable evidence now indicates that disorders of thinking, less gross and more limited than in psychosis, are important features of anxiety disorders. People with these disorders are prone to think in extreme terms about certain types of situations, such as those in which personal danger is a possibility, although a quite remote one. An unexpected noise in the house could be burglars breaking in and the noise of children playing in the street could give rise to visions of a hit-and-run accident. The anxious person is prone to anticipate rejection, humiliation, and deprecation by strangers as well as friends. These expectations of censure and harm can result in continual bodily mobilization for danger. An example of the cognitive difficulties experienced by people with anxiety disorders is furnished by the obsessive person who experiences intense anxiety when having to cross the street and who actually might be unable to attempt a crossing.

Research studies of obsessives have revealed several categories of unreasonable beliefs and assumptions (Rachman & Hodgson, 1980). In addition to a preoccupation with achieving certainty, obsessives believe that they (1) should be perfectly competent, (2) must avoid criticism or disapproval, (3) will be severely punished for their mistakes and imperfections.

Obsessives often believe that thinking certain thoughts or performing certain rituals will help avoid the disastrous outcomes they imagine are just around the corner. They adhere to arbitrary rules that they must follow carefully (for example, stepping on every seventh crack on
the sidewalk). Rule making is seen in other anxiety disorders; for example, a phobic might think "If I go into the elevator it might get stuck and I might suffocate, so I must not use the elevator." Unfortunately these "protective" thoughts and rituals become very intrusive, cause psychic strain, and can interfere with ongoing activity.

There are two general problems in a cognitive analysis of anxiety disorders: the diversity of phenomena subsumed under anxiety disorders and the multiplicity of components in most anxiety syndromes.

**Diversity of Anxiety Disorders**

The anxiety disorders cover a broad range of human problems. Whereas obsessives experience repetitive, troubling intrusive thoughts, compulsives exhibit repetitive overt behavior presumably based on dysfunctional cognitions. In phobias unrealistic fear of certain objects, activities, or situations predominates. In generalized anxiety disorders the major features are motor tension, autonomic hyperactivity, apprehensive expectation, and vigilance for danger signals. Questions that need investigation include the similarities and differences among anxiety disorders with regard to the psychological filters people employ in attending or not attending to stimuli produced by environmental events or by their own bodily and psychological reactions, the schemas or sets of assumptions individuals bring to life situations, and people's concepts of what constitutes appropriate, reasonable, or effective ways of handling situations. A clearer picture of those suffering from anxiety disorders should focus not just on finding these differentiating characteristics of the various anxiety disorders, but also on individual behavior patterns and histories. It requires information about their characteristic cognitive styles, their life
experiences--both in the recent and distant past--that are associated with the salient cognitive and clinical features and the cognitive factors involved in particular coping processes.

To better understand the anxiety disorders it is necessary to explicate the specific cognitive processes involved in specific maladaptive thoughts, images, and behavior. George Kelly (1955), a pioneer in the development of the cognitive approach to clinical problems, was among the first to recognize one roadblock that must be overcome in applying this approach.

The importance of such processes, those that are preverbal or that function automatically (that is, outside awareness), is increasingly being recognized, and these now seem to be ripe for expanded empirical investigation. It is at least conceivable that the diversity of symptoms in anxiety disorders can be understood through a combined attack on both the thoughts of which people are aware (for example, "I'm terribly worried") and those that have either gone on automatic pilot, so to speak, or that are now forgotten but in the past initiated a train of maladaptive thoughts.

Multiple Components of Anxiety

Anxiety disorders by definition either have anxiety as their predominant symptom, as in generalized anxiety disorder (GAD), or the anxiety is related to the person's attempts to master some disturbing symptom such as a phobia or obsessive-compulsive behavior. In addition to the 2% to 4% of the population that may at some time fit the anxiety disorder diagnosis, a far greater number experience anxiety that is occasionally or mildly incapacitating.

In spite of the general agreement that anxiety is an important aspect of human life, there is wide disagreement about its definition. Typically it is discussed as being such a complex experience as to make scientific investigation difficult or impossible. If there were such a thing,
perhaps the modal definition of anxiety would be in terms of an unpleasant emotional state or a condition marked by apprehension. In 1972, Spielberger defined anxiety as "an unpleasant emotional state or condition which is characterized by subjective feelings of tension, apprehension, and worry, and by activation or arousal of the autonomic nervous system" (p. 482). Leary (1982) offered this definition of anxiety: "Anxiety refers to a cognitive-affective response characterized by physiological arousal (indicative of sympathetic nervous system activation) and apprehension regarding a potentially negative outcome that the individual perceives as impending (p. 99)."

These definitions are typical and perhaps better than most but they still include many terms that have low inter-rater reliability. For example, how much agreement is there about what an emotional or affective state is, what subjective feelings of tension are, and what the referents are for the concepts of activation and arousal? Although the general concept of anxiety has been researched extensively, many of the findings have been conflicting and confusing. Contributing to this confusion have been definitions of anxiety that are not only difficult to apply reliably but also are too broad with regard to both what anxiety is and how it functions in affecting performance.

**Empirical Based Different Kinds of Treatments of Anxiety Disorders**

Effective, empirically validated pharmacological, psychotherapeutic, and behavioral interventions exist to treat the anxiety disorders. Recent evidence, however, suggests a lack of knowledge among health and mental health professionals of appropriate treatments for these disorders, and use of treatments often not based on sound empirical research.
However, the treatments with well-recognized empirical support include two main approaches: (1) pharmacotherapy (drug therapy) and (2) cognitive-behavioral therapy (CBT), a form of psychotherapy. (Greist et al, 1995)

In general, anxiety disorders are treated with medication, specific types of psychotherapy, or both (Hyman and Rudorfer, 2000). Treatment choices depend on the problem and the person’s preference. Before treatment begins, a doctor must conduct a careful diagnostic evaluation to determine whether a person’s symptoms are caused by an anxiety disorder or a physical problem. If an anxiety disorder is diagnosed, the type of disorder or the combination of disorders that are present must be identified, as well as any coexisting conditions, such as depression or substance abuse. Sometimes alcoholism, depression, or other coexisting conditions have such a strong effect on the individual that treating the anxiety disorder must wait until the coexisting conditions are brought under control.

Cognitive-Behavioral Therapy

Despite a large literature supporting the use of medications and CBT, there remains debate among clinicians and researchers regarding the relative efficacy of both approaches, as well as the relative importance of biological and psychological processes in the etiology of anxiety disorders. (Watson, 1990)

Pharmacological Approaches

Pharmacological approaches, including antidepressants (e.g., monoamine oxidase inhibitors) and antianxiety medications (e.g., benzodiazepines), have been shown to be helpful in treating each of the anxiety disorders, except specific phobias. Cognitive- behavioral therapy
(CBT) appears to be an effective psychological treatment for each anxiety disorder, although few properly controlled studies have been conducted to evaluate its effectiveness with PTSD and appropriately diagnosed specific phobias. CBT strategies shown to be helpful include cognitive restructuring (i.e., changing anxious thoughts, interpretations, and predictions into more rational and less anxious thoughts), exposure to feared objects and situations, and relaxation training.

**Medications**

Medication will not cure anxiety disorders, but it can keep them under control while the person receives psychotherapy.

**Antidepressants**

Antidepressants were developed to treat depression but are also effective for anxiety disorders.

**SSRIs**

Some of the newest antidepressants are called selective serotonin reuptake inhibitors, or SSRIs. SSRIs alter the levels of the neurotransmitter serotonin in the brain, which, like other neurotransmitters, helps brain cells communicate with one another.

**Anti-Anxiety Drugs**

High-potency benzodiazepines combat anxiety and have few side effects other than drowsiness. Because people can get used to them and may need higher and higher doses to get
the same effect, benzodiazepines are generally prescribed for short periods of time, especially for people who have abused drugs or alcohol and who become dependent on medication easily

**Psychotherapy**

Psychotherapy involves talking with a trained mental health professional, such as a psychiatrist, psychologist, social worker, or counselor, to discover what caused an anxiety disorder and how to deal with its symptoms.

**Conclusion**

By learning more about how the brain creates fear and anxiety, scientists may be able to devise better treatments for anxiety disorders. For example, if specific neurotransmitters are found to play an important role in fear, drugs may be developed that will block them and decrease fear responses; if enough is learned about how the brain generates new cells throughout the lifecycle, it may be possible to stimulate the growth of new neurons in the hippocampus in people with PTSD. (Gould, Reeves and Fallah et al, 1999)

One type of cognition that may be particularly relevant to psychophysiological and other conditions, as well as to anxiety disorders, consists of perceptions and thoughts about one’s bodily processes. A person’s physical and psychological condition may be a joint function of his or her state of physiological arousal, how that arousal is perceived and interpreted, and the contributions these perceptions and interpretations may make to the heightening of bodily arousal. Cognitive styles influence what people pay attention to in the psychological and bodily aspects of their lives, and because of their influence over how symptoms are presented, they may be related to clinical observations.
There is growing evidence that worry and self-preoccupation are among the most active ingredients of anxiety (Breznitz, 1971). This seems to be especially true for situations that lead to performance evaluations.
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